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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,175	12/22/2003	George E. Adam	050886DIV	7296

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EXAMINER

DULANEY, BENJAMIN O

ART UNIT	PAPER NUMBER
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2625

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/743,175

Applicant(s)

ADAM ET AL.

Examiner

Benjamin O. Dulaney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-10 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, filed 12/29/06, with respect to the rejection(s) of claim(s) 1 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. patent 6,546,129 by Ohta et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 1) Claims 1, 4, 5 and 7-10 are rejected under 35 U.S.C. 103(a) as being anticipated by U.S. patent 6,320,668 by Kim and further in view of U.S. patent 6,546,129 by Ohta et al.
- 2) Regarding claim 1, Kim teaches a method of producing compensation transforms comprising the steps of: generating a plurality of color reference patches (Column 11, lines 51-65); scanning said patches to produce scanned color space values (Column 12, lines 4-14); measuring said patches with an optical measuring device to produce measured color space values (Column 12, lines 31-40); and creating a compensation table from said scanned color space values and said measured color space values (Column 14, lines 16-26).

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Kim does not specifically teach that the scanning is performed with a calibrated scanner.

Ohta teaches that the scanning is performed with a calibrated scanner (Column 5, lines 15-20).

Kim and Ohta are combinable because they are both from the color correction field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kim with Ohta to add scanning with a calibrated scanner. The motivation for doing so would have been "to perform color matching" (Column 5, line 19). Therefore it would have been obvious to combine Kim and Ohta to obtain the invention as specified by claim 1.

3) Regarding claim 4, Kim teaches a method according to claim 1, wherein said color reference patches represents different combinations of inks (Column 11, lines 51-65; Figure 3).

4) Regarding claim 5, Kim teaches a method according to claim 1, further comprising the step of transforming a color value of a color patch based on the original ink values of said color patch (Column 11, line 52 – Column 12, line 30).

5) Regarding claim 7, Kim teaches a method according to claim 1, wherein said compensation transforms are a set of look up tables that map scanned uncompensated CIEL*a*b values to compensated CIEL*a*b values (Column 9, line 43 – Column 10, line 25).

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6) Regarding claim 8, Kim teaches a method according to claim 1, wherein said compensation transforms are a set of look up tables that map scanned uncompensated CIEL*a*b values to compensated CIEL*a*b values for different combinations of ink values (Column 9, line 43 – Column 10, line 25; Column 11, lines 51-65; Figure 3).

7) Regarding claim 9, Kim teaches a method according to claim 1, further comprising the step of mapping scanned CIEL*a*b values to optically measured CIEL*a*b values by using a CIEL*a*b to CMY transform for said scanning (Column 28, lines 56-65) and a CMY to CIEL*a*b transform for said optical measuring device (Figure 3; Column 9, line 43 – Column 10, line 25).

8) Regarding claim 10, Kim teaches a method according to claim 1, wherein said compensation transforms are a set of look up tables constructed out of gamut CIEL*a*b values using the least squares algorithm with CIEL*a*b values in the tables that are in gamut (Column 21, lines 17-30).

9) Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,320,668 by Kim and further in view of U.S. patent 6,546,129 by Ohta et al. as applied to claim 1 above, and further in view of U.S. patent 6,281,984 by Decker et al.

Kim does not specifically teach a method according to claim 1, further comprising the step of interpolating between different levels of K.

Decker teaches a method according to claim 1, further comprising the step of interpolating between different levels of K (Column 9, lines 30-51).

Kim and Decker are combinable because they are both from the color correction field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kim with Decker to add interpolation between values of K. The motivation for doing so would have been to determine values "via an interpolation program based upon input of all of the K values" (Column 9, line 48). Therefore it would have been obvious to combine Kim and Decker to obtain the invention as specified by claim 3.

10) Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,320,668 by Kim and further in view of U.S. patent 6,546,129 by Ohta et al. as applied to claim 1 above, and further in view of U.S. patent 6,480,299 by Drakopoulos et al.

Regarding claim 6, Kim does not specifically teach a method according to claim 1, wherein said optical measuring device is a spectrophotometer.

Drakopoulos teaches a method according to claim 1, wherein said optical measuring device is a spectrophotometer (Column 13, lines 42-55).

Kim and Drakopoulos are combinable because they are both from the color correction field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kim with Drakopoulos to add a spectrophotometer. The motivation for doing so would have been "color patches are printed and then

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measured" (Column 13, line 52). Therefore it would have been obvious to combine Kim and Drakopoulos to obtain the invention as specified by claim 6.

Allowable Subject Matter

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not specifically teach a method according to claim 1, wherein said compensation transforms for CMYK inks are processed for different levels of K using the formula $y = af_{\text{sub.0}}(x) + (1-a)f_{\text{sub.1}}(x)$, wherein y is the compensated output, x is the uncompensated output, $f_{\text{sub.0}}(x)$ is a transform for a first K cube, $f_{\text{sub.1}}(x)$ is a transform for a second K cube, and a is a scaling factor.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not



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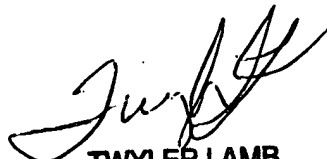
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin O. Dulaney whose telephone number is (571) 272-2874. The examiner can normally be reached on Monday - Friday (9am - 6pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


TWYLER LAMB
SUPERVISORY PATENT EXAMINER